## IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A hair dye composition comprising a dissociative direct dye represented by the following formula (1):

wherein,  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  each independently represents a hydrogen atom or a substituent, and X represents a hydroxyl group or -NHSO<sub>2</sub> $R^5$ , in which  $R^5$  represents an alkyl, aryl or heterocyclic group, with the proviso that each of the groups may have one or more substituents; and A represents a divalent group capable of forming a methine dye as a whole compound together with the portion other than A

wherein A in the dissociative direct dye (1) is a group represented by any one of the following formulas (Cp-1), (Cp-2) and (Cp-4) through (Cp-11):

Application No. 10/660,536
Reply to Office Action of November 4, 2004

(Cp-1) (Cp-2) (Cp-4) (Cp-4) 
$$R_{12}^{17}$$
  $R_{18}^{18}$   $R_{14}^{17}$   $R_{18}^{18}$   $R_{14}^{19}$   $R_{14}^{19}$ 

in formulas (Cp-1), (Cp-2) and (Cp-4) through (Cp-11), \* is a position bonding to the benzylidene group in formula (1),

in formula (Cp-1),  $R^{11}$  represents a cyano group, acyl group, aryl group, heterocyclic group or group  $-C(R^{101})=C(R^{102})-R^{103}$ , in which  $R^{101}$ ,  $R^{102}$  and  $R^{103}$  each independently represents a hydrogen atom or a substituent with the proviso that at least one of  $R^{102}$  and  $R^{103}$  is an electron attracting group having a Hammett  $\sigma p$  value of 0.1 or greater,

in formula (Cp-2), R<sup>12</sup> represents a cyano, acyl, alkoxycarbonyl, carbamoyl, aryl or heterocyclic group, and R<sup>13</sup> and R<sup>14</sup> each independently represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

in formula (Cp-4), R<sup>17</sup> and R<sup>18</sup> each independently represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

in formula (Cp-5), R<sup>21</sup> and R<sup>22</sup> each independently represents a cyano, carbamoyl, alkoxycarbonyl, alkylsulfonyl or arylsulfonyl group, and R<sup>23</sup> represents a hydrogen atom or an alkyl, aryl or heterocyclic group,

in formula (Cp-6), R<sup>24</sup>, R<sup>25</sup> and R<sup>26</sup> each independently represents a hydrogen atom or a substituent,

in formula (Cp-7), R<sup>30</sup> and R<sup>31</sup> each independently represents a hydrogen atom or a substituent, and Z<sup>1</sup> represents an atomic group necessary for the formation of a 5- or 6-membered ring together with N-C=N,

in formula (Cp-8), R<sup>32</sup> represents a hydrogen atom or a substituent, and Z<sup>2</sup> represents an atomic group necessary for the formation of a 5- or 6-membered ring together with N-C=N,

in formula (Cp-9),  $R^{33}$ ,  $R^{34}$  and  $R^{35}$  each independently represents a hydrogen atom or a substituent,  $Z^3$  represents a nitrogen atom or  $-C(R^{36})=$ ,  $R^{36}$  representing a hydrogen atom or a substituent, with the proviso that when  $Z^3$  represents  $-C(R^{36})=$ ,  $R^{34}$  and  $R^{36}$  may be coupled to form a 5-membered or 6-membered ring,

in formula (Cp-10), R<sup>37</sup> and R<sup>38</sup> each independently represents a cyano, carbamoyl, alkoxycarbonyl, alkylsulfonyl or arylsulfonyl group, R<sup>39</sup> represents a hydrogen atom or a substituent, u stands for an integer of from 0 to 4, and Z<sup>4</sup> represents -SO<sub>2</sub>- or -SO-, and

in formula (Cp-11), R<sup>40</sup> and R<sup>41</sup> each independently represents a cyano, carbamoyl, alkoxycarbonyl, alkylsulfonyl or arylsulfonyl group, R<sup>42</sup>, R<sup>43</sup> and R<sup>44</sup> each independently represents a hydrogen atom or a substituent, and t stands for an integer of from 0 to 4, with the proviso that the above-described groups may have one or more substituents).

## 2. (Canceled)

- 3. (Original) A hair dye composition of Claim 1, wherein R<sup>1</sup> and R<sup>2</sup> in the dissociative direct dye (1) are each a hydrogen or halogen atom, or an alkyl, cyano, acylamino, ureido, alkoxycarbonylamino, aryloxycarbonylamino, sulfamoylamino, alkoxycarbonyl, sulfamoyl or carbamoyl group.
- 4. (Original) A hair dye composition of Claim 1, wherein R<sup>3</sup> and R<sup>4</sup> in the dissociative direct dye (1) are each a hydrogen atom, a halogen atom, or an alkyl or acylamino group which may be substituted.
- 5. (Original) A hair dye composition of Claim 1, wherein X in the dissociative direct dye (1) is a hydroxyl group or -NHSO<sub>2</sub>R<sup>5</sup>, in which R<sup>5</sup> is an alkyl group which may be substituted.
- 6. (Currently Amended) A hair dye composition of Claim 2 1, wherein A in the dissociative direct dye (1) is a group (which may have one or more substituents) selected from the groups represented by:

formula (Cp-1) in which  $R^{11}$  is a cyano group, acyl group, heterocyclic group or group -C( $R^{101}$ )=C( $R^{102}$ )- $R^{103}$ ,

formula (Cp-2) in which  $R^{12}$  is a cyano group, aryl group or heterocyclic group and  $R^{13}$  and  $R^{14}$  are each a hydrogen atom, alkyl group or aryl group, with the proviso that at least one of  $R^{13}$  and  $R^{14}$  represents a hydrogen atom,

formula (Cp-3) in which R<sup>15</sup> is an alkyl, amino, alkylamino, arylamino, heterocyclic amino, alkoxy, acylamino, alkoxycarbonylamino, ureido, alkoxycarbonyl, carbamoyl or evano group, and R<sup>16</sup> is an aryl or heterocyclic group,

formula (Cp-4) in which R<sup>17</sup> and R<sup>18</sup> are each an alkyl or aryl group,

formula (Cp-5) in which  $R^{21}$  and  $R^{22}$  are each a cyano, carbamoyl or alkoxycarbonyl group, and  $R^{23}$  is a hydrogen atom, alkyl group or alkyl group,

formula (Cp-6) in which R<sup>24</sup> is a hydrogen atom or an aryl, acylamino, alkylsulfonylamino or arylsulfonylamino group, and R<sup>25</sup> and R<sup>26</sup> are each a hydrogen atom or an aryl, alkoxycarbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl or cyano group,

formula (Cp-7) in which  $R^{30}$  and  $R^{31}$  are each a hydrogen atom or an alkyl, aryl, heterocyclic, alkoxycarbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl or cyano group, and  $Z^1$  is a group capable of forming the following ring systems:

wherein, R<sup>111</sup> represents a hydrogen atom or an alkoxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, aryloxycarbonylamino, sulfamoylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio, arylthio or heterocyclic thio group, R<sup>112</sup> represents a hydrogen or halogen atom, or an alkyl, acyl, carbamoyl or alkoxycarbonyl group, R<sup>113</sup> and R<sup>114</sup> each independently represents a hydrogen atom or an alkyl group, and R<sup>116</sup> represents a hydrogen atom or an alkyl group, and R<sup>116</sup> represents a hydrogen atom or an alkyl, aryl, alkoxy, aryloxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio or arylthio group, R<sup>117</sup> and R<sup>118</sup> each independently represents a

hydrogen atom or an alkyl, aryl or heterocyclic group, and R<sup>119</sup> and R<sup>120</sup> each independently represents a hydrogen atom or an alkyl, aryl, heterocyclic, acyl, alkoxycarbonyl or carbamoyl group or they may be coupled together to form a benzene ring,

formula (Cp-8) in which  $R^{32}$  is a hydrogen atom or an alkyl, aryl, heterocyclic, alkoxycarbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl or cyano group, and  $Z^2$  is a group capable of forming the following ring systems:

in which, R<sup>111</sup> to R<sup>120</sup> have the same meanings as described above,

formula (Cp-9) in which  $Z^3$  is  $-C(R^{36})$ =,  $R^{36}$  represents a hydrogen atom or an acylamino group,  $R^{33}$  and  $R^{34}$  are each a hydrogen atom, a halogen atom, an alkyl group or acylamino group, and  $R^{35}$  is a hydrogen atom or an alkyl group; or in which  $Z^3$  is  $-C(R^{36})$ =, and  $R^{34}$  and  $R^{36}$  are coupled together to form a benzene ring which may be substituted with a halogen atom or an amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino or arylsulfonylamino group,

formula (Cp-10) in which R<sup>37</sup> and R<sup>38</sup> are a cyano or alkoxycarbonyl group, R<sup>39</sup> is a hydrogen or halogen atom or an alkyl, aryl, alkoxy, aryloxy, amino, alkylamino, arylamino, heterocyclic amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino,

arylsulfonylamino, alkylthio or arylthio group, u is an integer of from 0 to 2, and  $Z^4$  is -SO<sub>2</sub>-, and

formula (Cp-11) in which R<sup>40</sup> and R<sup>41</sup> are each a cyano or alkoxycarbonyl group, and R<sup>42</sup>, R<sup>43</sup> and R<sup>44</sup> are each a hydrogen or halogen atom or an alkyl, aryl, alkoxy, aryloxy, amino, acylamino, ureido, alkoxycarbonylamino, alkylsulfonylamino, arylsulfonylamino, alkylthio or arylthio group.

- 7. (Currently Amended) A hair dye composition of Claim 2 1 or 6, wherein A in the dissociative direct dye (1) is a group represented by formula (Cp-1), (Cp-2), (Cp-3), (Cp-4) or (Cp-8).
- 8. (New) A hair dye composition comprising a dissociative direct dye represented by the following formula (1):

wherein, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> each independently represents a hydrogen atom or a substituent, and X represents a hydroxyl group or -NHSO<sub>2</sub>R<sup>5</sup>, in which R<sup>5</sup> represents an alkyl, aryl or heterocyclic group, with the proviso that each of the groups may have one or more substituents; and A represents a divalent group capable of forming a methine dye as a whole compound together with the portion other than A,

wherein A in the dissociative direct dye (1) is a group represented by the formula (Cp-3):

(Cp-3)

in formula (Cp-3), \* is a position bonding to the benzylidene group in formula (1), in formula (Cp-3), R<sup>15</sup> represents a hydrogen atom or an alkyl, aryl, heterocyclic, amino, alkylamino, arylamino, heterocyclic amino, alkoxy, acylamino, alkoxycarbonylamino, ureido, alkoxycarbonyl, carbamoyl or cyano group, and R<sup>16</sup> represents a hydrogen atom or an alkyl or heterocyclic group.

- 9. (New) A hair dye composition of claim 8, wherein R<sup>1</sup> and R<sup>2</sup> in the dissociative direct dye (1) are each a hydrogen or halogen atom, or an alkyl, cyano, acylamino, ureido, alkoxycarbonylamino, aryloxycarbonylamino, sulfamoylamino, alkylsulfonylamino, arylsulfonylamino, alkoxycarbonyl, sulfamoyl or carbamoyl group.
- 10. (New) A hair dye composition of claim 1, wherein R<sup>3</sup> and R<sup>4</sup> in the dissociative direct dye (1) are each a hydrogen atom, a halogen atom, or an alkyl or acylamino group which may be substituted.
- 11. (New) A hair dye composition of claim 8, wherein X in the dissociative direct dye (1) is a hydroxyl group or -NHSO<sub>2</sub>R<sup>5</sup>, in which R<sup>5</sup> is an alkyl group which may be substituted.

Application No. 10/660,536 Reply to Office Action of November 4, 2004

12. (New) A hair dye composition of Claim 8, wherein A in the dissociative direct dye (1) is a group (which may have one or more substituents) selected from the groups represented by:

formula (Cp-3) in which R<sup>15</sup> is an alkyl, amino, alkylamino, arylamino, heterocyclic amino, alkoxy, acylamino, alkoxycarbonylamino, ureido, alkoxycarbonyl, carbamoyl or cyano group, and R<sup>16</sup> is a heterocyclic group.

13. (New) A hair dye composition of Claim 8, wherein A in the dissociative direct dye (1) is a group represented by formula (Cp-3).